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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/172,362	10/14/1998	ANTHONY J. DEZONNO	96RSS017.075	9182

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06/30/2003

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EXAMINER

AGDEPPA, HECTOR A

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 06/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/172,362

Applicant(s)

DEZONNO, ANTHONY J.

Examiner

Hector A. Agdeppa

Art Unit

2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 4/14/03. Claims 1 – 24 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 2, 4 – 11, 13 – 20, and 22 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilsoet et al. (U.S. Patent Number: 5,546,456) in view of Bigus et al. (U.S. Patent Number 5,155,763) and further in view of Donnelly (U.S. Patent Number 5,864,617).

Regarding claims 1, 10, and 19 Vilsoet et al. discloses a method of processing calls in an automatic call distributor (Fig. 1), such method comprising the steps of: learning a set of desired resource relationships for servicing a plurality of call processing load conditions in the automatic call distributor (column 4, lines 53 to 58); and distributing resources of the automatic call distributor based upon call processor loading and the learned set of resource relationships (column 4, lines 32 to 52).

What Vilsoet et al. does not disclose a neural network.

However, as admitted by Applicant and as seen in Bigus et al. (U.S. Patent Number 5,155,763) and Donnelly (U.S. Patent Number 5,864,617), neural networks are well known in the art as being used in telecommunications networks because they

afford a platform that can learn, react, and provide more exact call routing/call feature execution. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system and method taught by Vilsoet et al. implemented in a neural network setting in place of a conventional switching/data network because a neural network platform would have advantages over a conventional switched network such as the above-discussed learning aspect taught by Vilsoet et al.

Furthermore, if a system "learns" a set of desired relationships, then of course, training occurs as well. In order for a system to "learn", that system must monitor, analyze, absorb, and ultimately learn how to properly react to those certain aspects of the system that are to be "learned." This is in effect training.

Regarding claims 2, 11, and 20, Vilsoet et al. further discloses the method of processing calls wherein the step of distributing resources further comprises adjusting a ratio of inbound calls to outbound calls based upon the operating level of the automatic call distributor (column 5, lines 42 to 55).

Regarding claims 4, 13, and 22, Vilsoet et al. further discloses the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining a number of call that have been answered and are in a queue waiting to be assigned to an agent (column 5, lines 20 to 29).

Regarding claims 5, 14, and 23, Vilsoet et al. further discloses the method the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining a number of available agents (column 8, line 46).

Regarding claims 6, 15, and 24, Vilsoet et al. further discloses the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining an average call waiting time of a call in a call queue (column 7, lines 5 to 7).

Regarding claims 7, and 16, Vilsoet et al. further discloses the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining an average call waiting time of a call for each group of a plurality of agent groups of the automatic call distributor (claim 2).

Regarding claims 8, and 17, Vilsoet et al. further discloses the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining a number of calls in a call queue for each group of a plurality of agent groups of the automatic call distributor (claim 4).

Regarding claims 9, and 18, Vilsoet et al. further discloses the method of processing calls wherein the step of learning the set of desired resource relationships further comprises determining an average waiting time between call arrival at the automatic call distributor and call acceptance (column 7, lines 1 to 13 , and column 8, lines 37 to 47).

3. Claims 3, 12, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilsoet et al. (U.S. Patent Number: 5,546,456) and Bigus et al. (U.S. Patent Number 5,155,763) and Donnelly (U.S. Patent Number 5,864,617) and further in view of Corduroy et al. (U.S. Patent Number: 5,978,465).

Neither Vilsoet et al., Bigus et al., nor Donnelly disclose the method of processing calls wherein the step of distributing resources further comprises reassigning an agent of a first group to a second group.

However, Corduroy et al. discloses the method of processing calls as in claim 1 wherein the step of distributing resources further comprises reassigning an agent of a first group to a second group (Fig. 2, 44 and 46). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Vilsoet et al. with the addition teaching of Corduroy et al. because it would provide a system for automatically allocating call center resources , without requiring intervention by a supervisor (column 2, lines 2 to 7).

Response to Arguments

4. Applicant's arguments filed 4/14/03 have been fully considered but they are not persuasive.

As to applicant's arguments, all that is claimed is an ACD operating on a neural network platform. As to the training aspect, all that is claimed is that training occurs on a neural network platform regarding load conditions. As the prior art teaches and as is old and well known, load sharing and load distribution is usually addressed by monitoring operation of the system and accordingly adjusting variables or parameters or other factors in order for the system to operate at the desired efficiency.

Neural networks as shown by the prior art is old and well known in the ACD arts and therefore examiner maintains that using a neural network as a platform is obvious.

Also, applicant merely makes the assertion that the "teaching" and "learning" taught by the prior art is single-dimensional condition that is clearly different. Unfortunately, these assertions cannot be found or supported by the claims. The teachings of the prior art clearly fall within the scope of the term "training." See also, the Abstract of Bigus et al. which clearly teaches "training" in a neural network.

Also, to applicant's arguments regarding the meaning of the term "training," applicant has not included any such definitions or limitations that would indicate such a difference in the claims. In the telephonic arts, under which this application falls, "training" is read as examiner has asserted in the previous office actions and asserts here.

As to applicant's arguments regarding the difference between resources and calls, see Donnelly Col. 13, lines 45 – 50 wherein it clearly distinguished between calls and resources by teaching 2 separate classes, one being a call class and other being a resource class.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

H.A.A.
June 18, 2003


AHMAD MATAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600